Abstract

Variation in characteristics of *Mastogloia exigua* at three localities, Lake Nakaumi in San’in district, Lake Notoroko and Lake Fuurenko in Hokkaido was compared. A range of variation of *M. exigua* is relatively wide, and it varies with populations. Valve outline is not analogous among populations. Characters of *M. exigua* are grouped into two categories. The one contains characters, valve outline, valve breadth, number of partecta per semi-partectal ring, length of row of partecta, shape of central area and degree of development of lateral line. The other contains characters, arrangement of partecta, length of partectum, P value (relative length of row of partecta per valve length), arrangement of striae and density of striae and puncta. The former characters are not static, but they vary with valve length, and the later ones are the static characters. *M. paludium* Voigt and *M. pseudexigua* Choln. are included in a range of variation of *M. exigua*. They are considered synonymous with *M. exigua*.

Key index words: diatom, *Mastogloia exigua*, character, range of variation